

REMARKS

The Office Action dated December 1, 2008 has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto. Claims 1-12 are pending. By this Amendment, Claim 1 is amended. Support for the amendments to the claims can be at least found in the discussion from paragraphs [0153] and [0167] of the application as originally filed. Applicants respectfully submit that no new matter is presented herein.

Allowed Claims

Applicants respectfully acknowledge and appreciate the indication by the Examiner that Claims 4-12 are allowed.

Rejections Under 35 U.S.C. §103

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,722,325 to Shimizu et al. in view of U.S. Patent No. 7,124,013 to Yasui. Claim 2 is rejected under 35 U.S.C. § 103(a) as being obvious over Shimizu in view of Yasui. Claims 3/1 and 3/2/1 are rejected under 35 U.S.C. § 103(a) as being obvious over Shimizu in view of Yasui. Applicants respectfully traverse the rejections.

Claim 1 recites an intake air amount control system for an internal combustion engine which includes, among other features, first control value-calculating means for calculating a first control value for use in feedback controlling one of the cam phase and the valve lift to converge toward one of a corresponding target cam phase and a target valve lift such that the detected intake air amount converges to the target intake air amount, wherein a rate at which one of the cam phase and the valve lift is controlled to converge toward one of the corresponding target cam phase and the target valve lift is

higher than a rate at which the detected intake air amount converges to the target intake air amount.

Shimizu discloses a variable valve control apparatus for engines that includes, among other features, an engine control unit 114 receiving detection signals from an air flow meter 115, a variable valve lift mechanism 112, and a variable valve timing mechanism 113. An intake air amount Q is detected by the air flow meter 115 (col. 2, lines 52-54) and a target operating angle TGVEL (target valve lift amount) of control shaft 16 in variable valve lift mechanism 112 is calculated for controlling a valve lift (col. 6, lines 56-64).

The Office Action admits on page 3, lines 3-4, that Shimizu fails to disclose feedback controlling one of the cam phase and the valve lift to converge toward one of a corresponding target cam phase and a target valve lift such that the detected intake air amount converges to the target intake air amount. As such, Shimizu clearly also does not teach or suggest wherein a rate at which one of the cam phase and the valve lift is controlled to converge toward one of the corresponding target cam phase and the target valve lift is higher than a rate at which the detected intake air amount converges to the target intake air amount.

Applicants respectfully submit that Yasui fails to cure the deficiencies of Shimizu. Yasui discloses a control device, a control method, a control unit and an engine control unit for eliminating the lag time in controlling the timing between the input and output of a controlled object while improving the control accuracy at the same time (see Abstract). The control device comprises a deviation-calculating means for calculating a deviation between an output from a controlled object and a predetermined target value at a

deviation calculation period, and a control input-calculating means for calculating a control input to the controlled object so as to algorithmically converge the output from the controlled object to the target valued, according to the calculated deviation, at a predetermined control input calculation period that is shorter than the predetermined deviation calculation period (see Col. 66, lines 23-36). Yasui is directed to increasing the accuracy of the control of a single parameter by calculating the control input of the parameter in less time than it takes to calculate the deviation from a targeted value of the parameter output. Yasui does not teach or suggest the comparison of rates of convergence of multiple parameters. As such, Yasui does not teach or suggest a first control value-calculating means for calculating a first control value for use in feedback controlling one of the cam phase and the valve lift to converge toward one of a corresponding target cam phase and a target valve lift such that the detected intake air amount converges to the target intake air amount, wherein the rate at which one of the cam phase and the valve lift is controlled to converge toward one of the corresponding target cam phase and the target valve lift is higher than the rate at which the detected intake air amount converges to the target intake air amount, as recited by Claim 1.

For at least the reason(s) stated above, the Applicants respectfully submit that Shimizu and Yasui, alone or by any combination, do not teach or suggest each and every one of the features recited by Claim 1. As such, Applicants respectfully submit that one of ordinary skill in the art would not find it obvious to modify Shimizu and Yasui, alone or by any combination, to arrive at the features recited by Claim 1. Accordingly, Applicants submit that Claim 1 be deemed allowable over Shimizu and Yasui.

Claims 2 and 3 depend from Claim 1. Applicants respectfully submit that Claims 2 and 3 should be deemed allowable for at least the same reason Claim 1 is allowable, as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of the rejections.

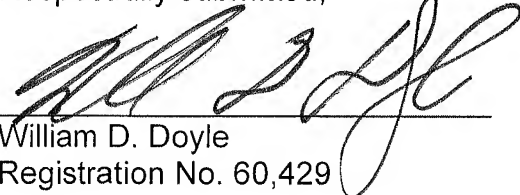
Conclusion

In view of the above, the Applicants respectfully request withdrawal of the outstanding objections and rejections, allowance of Claims 1-12, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing attorney docket number 108419-00082.**

Respectfully submitted,


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